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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,124	12/01/2003	Thomas F. Bailey	WEAT/0173.C1	2618

7590 04/13/2005

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EXAMINER
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BOMAR, THOMAS S

ART UNIT	PAPER NUMBER
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3672

DATE MAILED: 04/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/725,124

Applicant(s)

BAILEY ET AL.

Examiner

Shane Bomar

Art Unit

3672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 22-30 and 46-50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 22-30 and 46-50 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 November 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Amendment***

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

***Claim Rejections - 35 USC § 102***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 46-48, 50, and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by US patent 5,316,094 to Pringle.

Regarding claim 46, Pringle discloses a method for communicating with a downhole device comprising positioning a tubular string in a wellbore (see col. 3, line 65 through col. 4, line 2 and col. 7, lines 4-25). The tubular string includes a signal transducing downhole device such as a steering tool that is attached at threads 94 (see Fig. 1K, col. 5, lines 3-6, and lines 49-52) and an axially extendable signal conducting tool 108 having a flow path 110 therethrough (see col. 6, lines 9-11), wherein the signal conducting tool is located between the downhole device and an upper end of the tubular string (see Figs. 1A-1K). The method also includes sending a signal between the downhole device and a location above the tool 108, the signal traversing a path through the tool 108 wherein the signal path is physically separated from the fluid flow path (see Figs. 1A-1K where 44 is physically separate from flow path 110).

Regarding claim 47, the path includes a wall of the signal conducting tool 108 (see Figs. 1I-1K).

Art Unit: 3672

Regarding claim 48, the downhole device is inherently a drill bit (see col. 2, lines 44-50 and col. 5, lines 49-52).

Regarding claims 50, 26, and 29, the downhole device is a rotatable steering apparatus, and/or a thruster, that is actuated by an electrical transmission from the surface (see col. 1, lines 19-23, col. 2, lines 3-16, col. 2, lines 44-68, and col. 3, line 65 through col. 4, line 2).

***Claim Rejections - 35 USC § 103***

4. Claims 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pringle in view of US patent 4,416,494 to Watkins et al.

Pringle teaches the method of claim 46 that includes transmitting a signal. It is not taught that the signal is transmitted from a sensor, or that the sensor measures temperature, pressure, or chemical characteristics of a fluid around the bit.

Watkins et al teach a method and apparatus for controlling drilling similar to that of Pringle. It is further taught that at least one sensor is located adjacent the bit that measures temperature, pressure, and chemical characteristics of a fluid around the bit (see Fig. 1 and col. 5, lines 36-48). It would have been obvious to one of ordinary skill in the art, having the teachings of Pringle and Watkins et al before him at the time the invention was made, to modify the downhole device taught by Pringle to include the sensor instrument of Watkins et al, in order to obtain measurements of subsurface conditions or parameters. One would have been motivated to make such a combination since Watkins et al has shown that it was notoriously known in the drilling art to sense downhole parameters adjacent the bit and transmitting the data uphole via electrical power, and since Pringle has shown that data obtained from a downhole device can be sent uphole through the electrical transmitting tubular.

Art Unit: 3672

5. Claims 27, 30, and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pringle in view of US patent 4,899,834 to Weldon.

Pringle teaches the method of claims 46 and 47 that includes a downhole device actuated by an electrical transmission from the surface. It is not taught that the device is a drilling hammer or a vibrator.

Weldon teaches a method for communicating with a downhole device similar to that of Pringle. It is further taught that the downhole device is a drilling hammer and a vibrator (see col. 3, lines 3-5 and col. 4, lines 1-7). It would have been obvious to one of ordinary skill in the art, having the teachings of Pringle and Weldon before him at the time the invention was made, to modify the drill bit taught by Pringle to include the drilling hammer and/or vibrator of Weldon, in order to obtain a bit that can penetrate very hard formations (see col. 1, lines 40-45 of Weldon). One would have been motivated to make such a since Weldon has shown it to be notoriously known in the art to use a drilling hammer and/or vibrator downhole to assist in drilling hard formations.

6. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pringle in view of US patent 6,296,066 to Terry et al.

Pringle teaches the method of claim 46, wherein a downhole device is included. It is not expressly taught that the device is a stabilizer.

Terry et al teach a method and apparatus for controlling drilling similar to that of Pringle. It is further taught that a downhole device for the controlled drilling can be a stabilizer (see col. 17, lines 13-30). It would have been obvious to one of ordinary skill in the art, having the teachings of Pringle and Terry et al before him at the time the invention was made, to modify the

Art Unit: 3672

method taught by Pringle to include the downhole stabilizer of Terry et al, in order to obtain a drill string that can be propelled and steered in any direction more effectively. One would have been motivated to make such a combination since Terry et al have shown that it was notoriously known in the art of drilling control to use stabilizers as downhole devices for such control.

### *Response to Arguments*

7. Applicant's arguments with respect to claim 46 have been considered but are moot in view of the new ground(s) of rejection.

### *Conclusion*


8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shane Bomar whose telephone number is 703-305-4849. The examiner can normally be reached on Monday - Thursday from 7:00am to 4:30pm. The examiner can also be reached on alternate Fridays. NOTE: After 03/31/2005, the examiner's telephone number will change to 571-272-7026.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on 703-308-2151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3672

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
David F. Bagnell  
Supervisory Patent Examiner  
Art Unit 3672

tsb   
April 4, 2005